



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,070	07/16/2003	Pavel Sebor	90043	1258
7590	01/21/2005		EXAMINER	
Carl M. Napolitano			CHIN, RANDALL E	
Allen, Dyer, Doppelt, Milbrath & Gilchrist, P.A.			ART UNIT	PAPER NUMBER
255 South Orange Avenue, Suite 1401			1744	
P.O. Box 3791			DATE MAILED: 01/21/2005	
Orlando, FL 32802-3791				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/621,070	SEBOR, PAVEL
	<b>Examiner</b>	<b>Art Unit</b>
	Randall Chin	1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 December 2004.  
 2a) This action is **FINAL**.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-54 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) 1-37 is/are allowed.  
 6) Claim(s) 38-50 and 52-54 is/are rejected.  
 7) Claim(s) 51 is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 12152003 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

1. **Claims 1, 2, 19, 20, 22, 24, 25, 27-29, 38-40, 44, 45, 50 and 52 are objected to because of the following informalities:**

**Claim 1, line 9, it appears “and” should be deleted.**

**Claim 2, line 3, it appears “slidably” should read –slidable—for clarity.**

**Claim 19, line 3, should “periphery” read –peripheral portion-- for consistency with respect to claim 13?**

**Claim 20, line 2, should “periphery” read –peripheral portion-- for consistency with respect to claim 13?**

**Claim 22, line 2, it appears “approached” should read –approaches—for clarity.**

**Claim 24, line 2, the recitation “extending outward for a center thereof” is awkwardly written.**

**Claim 25, line 2, should “periphery” read –peripheral portion-- for consistency with respect to claim 13?**

**Claim 27, lines 3-4, should “the suction source” read –a suction source--?**

**Claim 28, line 6, it appears “and” should be deleted.**

**Claim 29, line 3, it appears “slidably” should read –slidable—for clarity.**

**Claim 38, line 6, it appears “and” should be deleted.**

**Claim 39, line 4, should “the spaced relation” read –a spaced relation--?**

**Claim 40, line 3, should “periphery” read –peripheral portion-- for consistency with respect to claim 38?**

**Claim 44, line 3, should “periphery” read –peripheral portion-- for consistency with respect to claim 38?**

**Claim 45, line 2, should “periphery” read –peripheral portion-- for consistency with respect to claim 38?**

**Claim 50, line 2, should “periphery” read –peripheral portion-- for consistency with respect to claim 38?**

**Claim 52, lines 3-4, should “the suction source” read –a suction source--?**

**Appropriate correction is required.**

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 38-43, 46-50 and 52-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Atkins '794.

The patent to Atkins '794 discloses with respect to claim 38 an apparatus for cleaning surfaces submerged in a fluid, the apparatus comprising a housing having a flow passage extending longitudinally from an inlet to an outlet for a flow of fluid and debris therethrough (Fig. 11), the housing would also have a valve (not shown)

operable within the flow passage for interrupting fluid flow therethrough during an oscillation thereof, a flexible disc or plate 2 carried proximate the inlet for engaging the surface to be cleaned, the plate having an upper surface, a lower surface that clearly would contact the surface to be cleaned, and a peripheral portion including a plurality of fins or tongues (Figs. 1, 5 and 6) extending outwardly thereabout, wherein each tongue includes a lower surface portion for contacting the surface to be cleaned and a portion 16 in a spaced relation with the surface to be cleaned during operation thus upwardly lifting an outermost periphery of the plate from the surface to be cleaned. Note, the "tongues" are being defined as the sections adjacent the hinge sections 13 on each side thereof (Fig. 3).

As for claim 39, there is further at least one rib defined by hinge sections 13 integrally formed with the upper surface of the plate wherein the tongues includes the ribs for reinforcing the portion of the tongue in spaced relation with the surface to be cleaned.

As for claim 40, there are a plurality of reinforcing elements defined by hinge sections 13 deemed integrally formed (at least in the final product) for upwardly contouring the peripheral portion from the surface to be cleaned.

As for claim 41, the reinforcing element comprises a rib 13 integrally formed (at least in the final product) with the upper surface of the plate, the rib extending radially outward while confined within the peripheral portion of the flexible plate.

As for claim 42, the reinforcing element 13 can also be termed a flange that partially extends along a peripheral edge of the tongue.

As for claim 43, the plate has a plurality of slots 17 outwardly extending from a center thereof.

As for claim 46, the plurality of slots 17 are considered tapered at least in part (Fig. 10).

As for claim 47, the plurality of slots are tapered and can provide a smaller gap as the gap approaches the peripheral portion (merely relative).

As for claim 48, each slot extends along a first imaginary line centrally positioned between a second imaginary line passing centrally through each tongue.

As for claim 49, the lower surface includes a plurality of grooves extending radially outward at indented step sections 9 and lower sections 8 (Fig. 5).

As for claim 50, a portion of the grooves extends only partially between the center and periphery of the plate (Fig. 5).

As for claim 52 (which depends on claim 38 only), the plate has a plurality of holes 17 extending from the upper surface to the lower surface which can modify a suction provided by the plate during operation.

As for claim 53, the tongues extend radially outward from a center of the flexible plate.

As for claim 54, the portion in spaced relation with the surface to be cleaned comprises a contoured lower surface (bottom part of portion 16) extending from the lower surface portion contacting the surface to be cleaned.

4. Claims 38-45, 48 and 52-54 are rejected under 35 U.S.C. 102(b) as being anticipated by Rice '443.

Rice '443 teaches an apparatus for cleaning surfaces submerged in a fluid, the apparatus comprising a housing that has a flow passage extending longitudinally from an inlet to an outlet for a flow of fluid and debris therethrough (not shown but would be connected to footpad 16 as is typical and known in the art), the housing having a valve to enable the cleaner to move across a pool surface operable within the flow passage for interrupting fluid flow therethrough during an oscillation thereof (valve not shown but again is a typical and known arrangement in the art for maneuvering the cleaner across a pool surface), and a flexible disc or plate 10 carried proximate the inlet for engaging the surface to be cleaned, the plate having an upper surface, a lower surface that contacts the surface to be cleaned (Fig. 4), and a peripheral portion 20 including a plurality of tongues 30 radially extending thereabout, each tongue includes a lower surface portion at 42 (simply the bottom surfaces of these tongues) for contacting the surface to be cleaned and a portion, for example, at 46 (Fig. 4) in a spaced relation with the surface to be cleaned during operation thus upwardly lifting an outermost periphery of the plate from the surface to be cleaned.

As for claim 39, there is further at least one rib defined merely by a fin 26 integrally formed (col. 4, lines 21-22) with the upper surface of the plate wherein the tongues 30 includes the ribs 26 for reinforcing the portion of the tongue in spaced relation with the surface to be cleaned.

Since claim 40 depends on claim 38 (and not on claim 39), the fins 26 can also

be considered "reinforcing elements" integrally formed with the plate for upwardly contouring the peripheral portion from the surface to be cleaned.

As for claim 41, the reinforcing element comprises a "rib" 26 integrally formed with the upper surface of the plate, the rib extending radially outward while confined at least partially (Figs. 1 and 2) within the peripheral portion of the flexible plate.

As for claim 42, the reinforcing element 26 can also be termed a flange that partially extends along a peripheral edge of the tongue. Also, a plurality of these ribs or flanges extend along a peripheral edge of the tongues in the circumferential direction.

As for claim 43, the plate also has holes or slots 140 outwardly extending from a center thereof (Fig. 7).

As for claim 44, the plate further has a plurality of slits 120 with each slit outwardly extending from each one of the slots (Fig. 7) outward to the peripheral portion (at least in a relative sense).

As for claim 45, each slot extends through the periphery.

As for claim 48, each slot extends along a first imaginary line centrally positioned between a second imaginary line passing centrally through each tongue (Fig. 8).

As for claim 52, the plate has holes 120 extending from the upper surface to the lower surface which can modify a suction provided by the plate during operation.

As for claim 53, the plurality of tongues extend radially outward from a center of the flexible plate (Fig. 1).

As for claim 54, the portion in spaced relation with the surface to be cleaned

comprises a contoured lower surface (bottom part of portion 46 in Fig. 2, for example) extending from the lower surface portion contacting the surface to be cleaned.

***Allowable Subject Matter***

5. Claims 1-37 are allowed **pending clarification of the objections set forth above.**

Claim 51 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. Applicant's arguments filed 20 December 2004 have been fully considered but they are not persuasive.

Applicant primarily argues that neither Atkins '794 nor Rice '443 identically discloses the claimed invention of independent claim 38. Applicant's remarks have been considered, however, are deemed unpersuasive.

With respect to Atkins '794, for example, Applicant states that col. 3, lines 6-8 of Atkins '794 teaches the disc 2 having a serrated edge 15 and upstanding and outwardly projecting fins 16. Notwithstanding this, however, it is the Examiner's position that Atkins '794 still discloses all of the structure recited in independent claim 38. The fact that there may be a serrated edge as well as fins 16 still does not preclude the fact that Atkins' also teaches a tongue arrangement structure as already explained in the above

art rejection. Clearly, the tongues as defined by the Examiner above have a lower surface portion for contacting the surface to be cleaned (see Fig. 2 of Atkins '794) as well as a portion in spaced relation with the surface to be cleaned which are merely the radial projecting fins 16. By similar reasoning, Rice '443 is deemed to also meet claim 38.

As for claim 41 reciting that the outwardly extending rib is confined within the peripheral portion of the flexible plate, it should be noted that in both Atkins '794 and Rice '443, the ribs are deemed to be at least **partially** confined therein. Also, the fact that the fins might be "added" to the disk does not preclude what is taught by Atkins and Rice as a final product/structure. To say that the fins are added to the disk and not part of the disk is not persuasive here.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communication from the Examiner should be directed to Randall Chin whose telephone number is (571) 272-1270. The Examiner can normally be reached on Monday through Thursday and every other Friday.

If attempts to reach the Examiner are unsuccessful, the Examiner's supervisor, Robert Warden, can be reached at (571) 272-1281. The number for Technology Center 1700 is (571) 272-1700.

The central fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
R. Chin

  
Randall Chin  
Primary Examiner  
Art Unit 1744